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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,861	01/15/2002	Wei Luo	CISCP733	1638

26541 7590 02/17/2005

RITTER, LANG & KAPLAN  
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SARATOGA, CA 95070

EXAMINER
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MARTIN, NICHOLAS A

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/051,861

Applicant(s)

LUO ET AL.

Examiner

Nicholas Martin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/15/2002</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Claims 1-24 are presented for examination.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On lines 4-6 on page 21, it states, "...accounting information sent to the virtual private network's AAA server is different than the accounting information send to the virtual private network's AAA server". This is unclear because it is stating that the same information is different when sent to the same server.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-10 and 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated over Fulton et al. (hereinafter Fulton), US 2002/0010865.

4. As per claim 1, Fulton teaches a method for providing authentication in a virtual private network having an AAA server, the method comprising:

receiving a request from a remote user for connection with a virtual private network at a virtual home gateway (Paragraph [0102]);

associating the remote user with the virtual private network (Paragraph [0038]; Table 1, page 2);

sending a request to authenticate the remote user from the virtual home gateway to the AAA server (Paragraph [0101]); and

connecting the remote user to the virtual private network if the AAA server authenticates the user (Paragraph [0101]).

5. As per claim 2, Fulton teaches the method of claim 1 wherein associating the remote user comprises receiving a virtual private network ID and address of an AAA server of the virtual private network (Paragraphs [0060], [0064], [0198], [0226] and [0298]).

6. As per claim 3, Fulton teaches the method of claim 2 wherein the virtual private network ID binds a profile of the virtual private network to a routing table of the virtual home gateway (Paragraphs [0025] and [0070]).

7. As per claim 4, Fulton teaches the method of claim 1 wherein associating the remote user comprises sending a request to a service provider AAA server to authorize the remote user (Paragraph [0038]; Table 1, page 2 and Paragraph [0101]).
8. As per claim 5, Fulton teaches the method of claim 4 wherein the service provider AAA server contains the address of the virtual private network's AAA server (Paragraphs [0060] and [0064]).
9. As per claim 6, Fulton teaches the method of claim 1 wherein sending a request to authenticate the remote user comprises routing the request using a customer routing table of the virtual private network (Paragraphs [0025], [0101] and [0070]).
10. As per claim 7, Fulton teaches the method of claim 1 wherein connecting the remote user to the virtual private network comprises setting up a PPP session for the remote user (Paragraphs [0178], [0192], [0196] and [0274]).
11. As per claim 8, Fulton teaches the method of claim 1 further comprising sending an accounting request to the virtual private network's AAA server (Paragraph [0097]).
12. As per claim 9, Fulton teaches the method of claim 8 further comprising sending an accounting request to the service provider's AAA server (Paragraphs [0033], [0060], [0082] and [0097]).
13. As per claim 10, Fulton teaches the method of claim 9 wherein accounting information sent to the virtual private network's AAA server is different than the accounting information sent to the virtual private network's AAA server (Paragraph [0097]).

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14. As per claim 12, Fulton teaches the method of claim 1, wherein associating a remote user with the virtual private network comprises identifying the virtual private network based on a dial-up phone number (Paragraphs [0031], [0198], [0237] and [0296]).

15. As per claim 13, Fulton teaches the method of claim 1 wherein associating a remote user with the virtual private network comprises identifying the virtual private network based on a circuit ID (Paragraphs [0031-0033], [0041], [0066], [0198] and [0226]).

16. As per claim 14, Fulton teaches a computer program product for providing authentication in a virtual private network having an AAA server, the product comprising:

code that receives a request from a remote user for connection with a virtual private network at a virtual home gateway (Paragraph [0058], [0102], [0174] and [0230]);

code that associates the remote user with the virtual private network (Paragraph [0038]; Table 1, page 2; [0058], [0174] and [0230]);

code that sends a request to authenticate the remote user from the virtual home gateway to the AAA server (Paragraph [0058], [0101], [0174] and [0230]);

code that connects the remote user to the virtual private network if the AAA server authenticates the user (Paragraph [0058], [0101], [0174] and [0230]); and

a computer-readable storage medium for storing codes (Paragraphs [0027], [0045] and [0277]).

17. As per claim 15, Fulton teaches the product of claim 14 further comprising code that requests a service provider AAA server to authorize a remote user (Paragraphs [0038]; Table 1, page 2 and Paragraph [0058], [0097], [0101], [0174] and [0230]).

18. As per claim 16, Fulton teaches the product of claim 14 further comprising code that sends accounting requests to the virtual private network AAA server (Paragraphs [0058], [0097], [0174] and [0230]).

19. As per claim 17, Fulton teaches the product of claim 14 further comprising code that binds a profile of the virtual private network to a routing table of the virtual home gateway (Paragraphs [0025], [0058], [0070], [0174] and [0230]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 11, 18-24 are rejected under 103(a) as being unpatentable over Fulton, in view of Hagen, W. Alexander (hereinafter Hagen), US 2002/0075844.

17. As per claim 11, Fulton teaches the method of claim 1 wherein associating a remote user with the virtual private network (Paragraph [0038]; Table 1, page 2).

18. Fulton does not teach the method of claim 1 wherein comprises identifying based on a domain name.

19. Hagen teaches the method of claim 1 wherein comprises identifying based on a domain name (Paragraph [0049]).

20. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hagen and Fulton because they both deal with accessing private network and their resources. Furthermore, the teaching of Hagen to allow wherein comprises identifying based on a domain name would improve functionality of Fulton's system by maximizing communication compatibility of all participating users/clients and therefore increase efficiency of providing information over the network.

21. As per claim 18, Fulton teaches a system for providing authentication in a virtual private network having an AAA server, the system comprising:

a virtual home gateway configured to receive request from a remote user for connection with a virtual private network (Paragraph [0102]), send a request to authenticate the remote user to the AAA server of the virtual private network (Paragraph [0101]), and connect the remote user to the virtual private network (Paragraph [0101]);

a database for storing addresses of virtual private network AAA servers (Paragraph [0277]).

22. Fulton does not teach a system comprising:

a processor operable to look up the address of the virtual private network AAA server based on information received from the remote user.

23. Hagen teaches a virtual private network system comprising:



a processor operable to look up the address of the virtual private network AAA server based on information received from the remote user (Paragraphs [0061] and [0175]).

24. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hagen and Fulton because they both deal with accessing private network and their resources. Furthermore, the teaching of Hagen to allow a processor operable to look up the address of the virtual private network AAA server based on information received from the remote user would improve functionality and efficiency of Fulton's system by integrating the communication protocol in order to execute instructions and transfer information to and from resources over the network.

25. As per claim 19, Fulton teaches the system of claim 18, wherein the information received from the remote user is a circuit ID (Paragraphs [0031-0033], [0041], [0066], [0198] and [0226]).

26. As per claim 20, Fulton does not explicitly teach the method of claim 18 wherein the information received from the remote user is a domain name.

27. Hagan teaches the method of claim 18 wherein the information received from the remote user is a domain name (Paragraph [0049]).

28. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hagen and Fulton because they both deal with accessing private network and their resources. Furthermore, the teaching of Hagen to allow wherein the information received from the remote user is a domain name would improve functionality of Fulton's system by maximizing communication compatibility of

all participating users/clients and therefore increase efficiency of providing information over the network.

29. As per claim 21, Fulton teaches the system of claim 18 wherein the information received from the remote user is a dial-up phone number (Paragraphs [0031], [0198], [0237] and [0296]).

30. As per claim 22, Fulton teaches the system of claim 18 further comprising a service provider AAA server coupled to the virtual home gateway and configured to authorize the remote user (Paragraphs [0038] and [0101]; Table 1, page 2).

31. As per claim 23, Fulton teaches the system of claim 18 wherein the database includes virtual private network IDs used to bind virtual private network profiles to a routing table of the virtual home gateway (Paragraphs [0025], [0070] and [0277]).

32. As per claim 24, Fulton teaches the system of claim 23 wherein the virtual home gateway comprises a routing table corresponding to different virtual private networks (Paragraphs [0025] and [0070]).

33. Fulton does not teach a system if claim 23 wherein the virtual gateway comprises of routing tables corresponding to different virtual networks.

34. Hagen teaches a system if claim 23 wherein the virtual gateway comprises of routing tables corresponding to different virtual networks (Paragraph [0098]).

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hagen and Fulton because they both deal with accessing private network and their resources. Furthermore, the teaching of Hagen to allow wherein the virtual gateway comprises of routing tables corresponding to different

virtual networks would improve functionality of Fulton's system by increasing efficiency in resource lookup as each network would have a corresponding routing table.

### ***Conclusion***

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Method And System For Providing Authorization, Authentication And Accounting For A Virtual Private Network".

- |      |                 |                                |
|------|-----------------|--------------------------------|
| i.   | US 6,765,881    | Rajakarunanayhake, Yasantha N. |
| ii.  | US 6,606,744    | Mikurak, Michael G.            |
| iii. | US 6,016,318    | Tomoike, Hiroyuki.             |
| iv.  | US 2002/0069278 | Forslow, Jan.                  |

A shortened statutory period for reply to this Office action is set to expire in THREE MONTHS from the mailing date of this action.

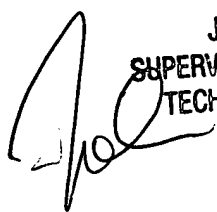
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Martin whose telephone number is (571) 272-3970. The examiner can normally be reached on Monday - Friday 8:30 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3970.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nam  
February 9, 2005

 **JOHN FOLLANSBEE**  
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